

In Search of Clear Writing: A Use and Assessment of the Fog Index

The following connects to p. 237 of *Acting on Words*.

The Fog Index

PhD in mathematics and professor emeritus at UCLA, Robert Gunning authored the 1968 text *The Technique of Clear Writing* to promote readability through various methods, including active voice (see Handbook Common Error 14) as well as sentence length and diction. Gunning is best known, however, for the Fog Index, originally publicized through business publications such as the *Wall Street Journal*. As you will see, his system doesn't presume primarily to help us grasp meaning; its goal is to test and encourage style: clarity and ease of reading

The first listed reference at the end of the following student essay directs you to a web site that explains the Fog Index, a step-by-step formula, which we have also summarized immediately below. Student Colleen Leonard applies Gunning's Fog Index to two different essays from the Reader: "A Liberal Education is Key to a Civil Society" (p. 461) and "The Right Stuff" (464). Read the following formula and then both essays. Try the formula on your own selected passages from the two essays; then read Leonard's essay to see if you have come to similar conclusions. It would also enrich your appreciation of the following analysis to read George Orwell's essay "Politics and the English Language" (471), to which Leonard refers. Note that Leonard uses the APA system of documenting her sources.

How to Use the Fog Index

1. From the writing you wish to analyze, take a passage of 100 words (or close to 100 words).

2. Count the number of sentences in the passage. You may count independent clauses that follow one another directly (i.e. after semicolons or colons or coordinating conjunctions followed by a comma).
3. Find the average number of words per sentence by dividing the number of words in your sample by the number of sentences.
4. Count the number of words (excluding proper nouns) of three syllables or more. Don't count verbs that reach three syllables by grammatical endings such as -es, -ed, or -ing. Exclude simple compounds like "shopkeeper."
5. Calculate the percentage of three-syllable words.
6. Add the average number of words per sentence to the percentage of three-syllable words.
7. Multiple the total by 0.4.
8. The resulting number, _____, is the years of formal schooling needed to easily read and understand the text from which your sample of writing has been taken.

In Search of Clear Writing: A Use and Assessment of "The Fog Index"

Colleen Leonard

George Orwell wrote that "[a] scrupulous writer, in every sentence that he writes" will ask a number of questions, such as "[w]hat am I trying to say?" and "[c]ould I put it more shortly?" (1946, p. 234). He felt strongly that clarity and simplicity was the essence of good writing. Similarly, the Fog Index, created by Robert Gunning, is a device used for estimating the reading difficulty of a piece of writing. The idea behind the Fog Index is that longer words and sentences make text harder to read. To calculate the Fog Index, one adds the average sentence length to the percentage of polysyllable (more than three syllables) words, and then multiplies that result by 0.4 (Gunning, 1973, as cited by University of Missouri). The answer then indicates the approximate grade level of education the reader needs in order to understand that piece of writing. To provide a benchmark: *Time* magazine articles typically have a fog index of 11, and professional writing tends to stay under 18 (Miles, 1990). I chose to measure and analyze

the Fog Index scores of two essays from *Acting on Words* (Brundage & Lahey, 2004). I found that the Fog Index scores did match my own perception of the reading ease of these two essays.

The first essay I analyzed was, "A Liberal Education is Key to a Civil Society", by James Downey (2000), past-president of the University of Waterloo. The Fog Index score for this essay was 23, which falls well into the very-difficult-to-read category. If 19 years of education is required to obtain a bachelors level degree, then according to the Fog Index, this essay would require graduate level studies in order to quickly and easily understand it. In a sampling of 115 words, this essay contained 19 polysyllable words, and had an average sentence length of 38 words. A more common average sentence length these days, according to the Ten Principles of Clear Statement (Gunning, 1973), is 15 to 20 words—at least in order to make it more accessible to a broad audience. A sentence length of 38 words would have been more typical in the Elizabethan era (Gunning, 1973). While the Ten Principles of Clear (Gunning) does warn that long words and sentences are not the sole cause of "foggy writing", it does seem that too much of that does contribute to what Orwell referred to as "inflated style" (1946, p. 478). Certainly, in Downey's essay, I felt I had to battle my way through all the lengthy words to understand his premises. Due to this, I felt his idea had been diluted by the complicated prose—though I realize that I am not necessarily the intended audience for this essay, as it may have been aimed at graduate students.

Principle 7 suggests using "terms your reader can picture" (Gunning). With this in mind, here is a small sampling of some of the lengthy words in Downey's essay: education, universities, academic, disciplines, monopoly, contemporary, curricula, engineering, professional, liberal, engagements, ironically, undergraduate, acknowledged. Most of these words are hard to envision, due to their abstraction, and so this may have contributed to the difficulty of getting easily to the message. Interestingly, these words conjured up more of an image of the *speaker* than they did of the *message*. This brought to mind a reference to Orwell's symbol for writing, as outlined in *Acting on Words*: "His image for writing was the window, a clear pane. It doesn't attract any attention to itself; consequently, we see sharply what it focuses us to see..." (Brundage & Lahey, 2009, p. 471).

The second essay I analyzed was "The Right Stuff ", by David Suzuki (1989), who is a renowned Canadian scientist, and host of *The Nature of Things*. The Fog Index for a sampling of Suzuki's essay was 12, and the average sentence length was around 21. Suzuki used very few large words and made it very easy for readers to visualize his message, as he provided real life examples and analogy. This is not surprising, as Suzuki "believes it is crucial for ordinary people to understand science" (Brundage & Lahey, 2004, p. 464), and so presumably his writing is geared to a level that ensures broad comprehension. Suzuki's essay conformed in all the Ten Principles of Clear Writing (Gunning, 1973), and was especially effective in "bringing action" to his verbs (principle 5), writing more conversationally (principle 6), and "tying in with the reader's experience" (principle 8), by the use of example. Suzuki is very effective at clear communication, and his essay makes one feel as though he is writing with the intention of "expressing" his idea as easily as is possible (principle 10). The reader is clearly his focus.

These days, speaking in Plain Language is recommended as a guideline to writers and appears to be preferred by most readers, even highly educated ones. For instance, though writers should tailor their language to the specific audience intended (i.e. a document intended for engineers might appropriately contain engineering "jargon"), it seems that even those in the field may prefer the reading to be as easy as possible, while still conveying the crucial information. For example, a British Medical Journal article in 2002, examines the "Readability of British and American medical prose at the start of the 21st century," and concludes that medical journal articles are "extremely difficult to read" and that "[i]mproving the readability of medical manuscripts may enhance their consumption—both by clinicians and the general public." Likewise, a 1994 Journal of the American Medical Association (JAMA) article, related to the readability of medical articles, noted a trend towards shorter publications. It also noted the huge "burden of media" on physicians today and suggested that "better readability scores" may be one part of increasing "readership" (Roberts, Fletcher H. & Fletcher S., 1994). In other words, it is not only the lay public who benefits from simplified language: even physicians and scientists do, whenever possible: "My aim is to make things as simple as possible, but not simpler than that" (Albert Einstein, n.d., source unknown).

What exactly does the term Plain Language or Plain English mean? The Plain Language Association provides the following definition on their website, by Oxford Guide to Plain English: "The writing and setting out of essential information in a way that gives a co-operative, motivated person a good chance of understanding it at first reading, and in the same sense that the writer meant it to be understood" (Cutts, 2004). In a handbook, called Plain Language, (written for writers in the U.S. Federal Government) it is defined as "writing that communicates to *your* reader" (Lauchman, 2001). The same handbook makes the distinction that plain does not mean the writing is "necessarily simple" or that jargon is never used: in fact Lauchman specifies that jargon is often best when writing "to other experts in [the] field" because it may offer the quickest, and most accurate, way to get across the meaning. An important message was to "avoid unnecessarily complexity, regardless of the audience". (Lauchman, 2001, p. 7).

In conclusion, it seems clear that the ability to write simply, and with clarity, has significant value to both the reader and writer. Therefore, tools like the Fog Index are worthwhile to spot-check writing, and give a crude estimate as to the readability of a piece of writing. Nevertheless, readability formulas are not a magic-potion that ensures writing will be clear to the reader: they simply provide feedback about sentence and word length. A formula cannot judge the meaning or substance of a piece of writing, so it can be considered only a small, though helpful, part of a writer's tool set. "The Ten Principles of Clear Writing" (Gunning, 1973) go a long way towards helping with the substance of writing, and, sixty years later, Orwell's advice is as timely as ever: "What is above all needed is to let the meaning choose the word, and not the other way about" (1946, p. 480).

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¹ Adapted by the University of Missouri (with permission) from "The Technique of Clear Writing," rev. ed. New York: McGraw-Hill Book Company, 1973.

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Focus Questions

1. Leonard found that the Fog Index scores did match her “own perception of the reading ease of these two essays.” Did you find the same thing? Do you agree or disagree with her other conclusions concerning the two articles chosen and the Fog Index itself? Explain.
2. Identify several writing occasions that might benefit by awareness of the Fog Index. Some might suggest that it has no particular relevance for academic writers? What do you think of this opinion?

For Further Reading

For another investigation of writing using the Fog Index, see “‘Quality or Quantity?’ A Use of the Fog Index” at this website, Chapter 15. Also see any of the three comparison essays at Chapter 12 of this website for a Fog Index analysis contrasting Susan McClelland’s “The Lure of the Body Image”(447) and Margaret Atwood’s “Canadians: What Do They Want?” (467).